Posttraumatic Stress Disorder in Primary Care: A Hidden Diagnosis

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Posttraumatic stress disorder (PTSD) is common worldwide, with prevalence rates ranging from 1% to nearly 40%, depending on the population studied. The disability and natural course of PTSD in psychiatric patients have been well characterized. However, even though the primary care setting has been described as the "de facto mental health care system," surprisingly little is known about PTSD in primary care. Available data from primary care clinics in the United States and Israel suggest that PTSD may be as prevalent in this setting as has been reported in large epidemiologic studies. Patients may be unlikely to endorse traumatic experiences or may not consider them related to their current psychological problems. The prevalence of PTSD in primary care may indeed be higher than expected because of underreporting of domestic violence and other histories of trauma. Recognition of PTSD in primary care could be greatly improved if simple trauma histories were integrated into routine medical examinations. Primary care clinicians who maintain a high index of suspicion for PTSD in their patients with positive histories of trauma plus symptoms of depression or anxiety or other signs of psychological distress, suicidal thoughts or actions, alcohol or substance abuse, or excessive health care service utilization may increase the recognition rate of this disorder in their practices.

(J Clin Psychiatry 2004;65[suppl 1]:49–54)

For nearly one quarter of a century, primary care has been described as the "de facto mental health care system" because a majority of patients with psychiatric diagnoses are treated in the general medical care setting.[1–3] Major depression and anxiety disorders, such as panic disorder, generalized anxiety disorder, social anxiety disorder, and obsessive-compulsive disorder, are very prevalent in primary care.[1] Even though primary care is the only source of health care for most patients with psychiatric illness, many are neither diagnosed nor treated in this setting. It has been estimated that 1 of 8 primary care patients has an undiagnosed psychiatric disorder.[4]

Notably absent from these reports is a description of the numbers of patients with posttraumatic stress disorder (PTSD) who seek help in the primary care setting. It is likely that patients with PTSD may also visit their primary care physician more often than a mental health care provider,[5] but definitive studies of the prevalence of PTSD in primary care have not been conducted. PTSD is truly a hidden diagnosis in primary care. The purpose of this article is to review the current state of knowledge about PTSD in primary care and to identify unmet needs in the recognition and management of patients with PTSD in primary care.

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The International Consensus Group on Depression and Anxiety held the meeting "Update on Posttraumatic Stress Disorder," July 11–12, 2002, in Adare, County Limerick, Ireland. The Consensus Meeting was supported by an unrestricted educational grant from GlaxoSmithKline.

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OVERVIEW OF PTSD

The syndrome of PTSD has long been accepted as an adverse consequence of military service and combat exposure and has been referred to by a variety of terms, including "shell shock," "combat fatigue," and "post-Vietnam syndrome." Since 1980, when it was included as a diagnosis in the third edition of the *Diagnostic and Statistical Manual of Mental Disorders* (DSM-III), PTSD has also been increasingly recognized in civilians who are victims of rape, physical assault, natural disasters, motor vehicle accidents, and other traumatic events. Reported rates of PTSD in general community samples vary widely across the world, from as low as 1.3% in Germany to 37.4% in Algeria.[6–8] The Global Burden of Disease study estimates that by the year 2020, motor vehicle accidents, war, and violence will be the third, eighth, and twelfth leading causes of disability worldwide after ischemic heart disease (first) and major depression (second).[9] Thus, it could be anticipated that rates of PTSD will increase correspondingly.

Data from 2 large surveys of the general community confirmed the prevalence of PTSD in the civilian adult

population of the United States. The second wave of the Epidemiologic Catchment Area survey provided data on traumatic experiences and the rates of PTSD in 2493 adults from 1 geographic region of the United States. The lifetime prevalence of PTSD in this population was 3.5% in civilians exposed to physical attack.[10] Data from the National Comorbidity Survey (NCS) of more than 8000 community-living adults in the United States indicate that more than 50% of the population have experienced a traumatic event at some point of their lives.[7] Of those persons who have been exposed to trauma, more than 10% have experienced multiple traumatic events. The lifetime prevalence of PTSD in the NCS sample was 7.8%.[7] Women were twice as likely as men to develop PTSD in their lifetime (10.4% vs. 5%, $p < .05$).[7]

The most commonly reported traumas in the NCS that were associated with the development of PTSD in men were witnessing a traumatic event and combat exposure. Rape and sexual abuse were the traumas most often associated with PTSD in women.[7] Domestic violence and early childhood adversity, such as sexual abuse, physical abuse, or neglect, are also becoming increasingly recognized as traumatic events associated with PTSD.[11–14]

A diagnosis of PTSD requires exposure to 1 or more traumatic events and the development of a characteristic response, such as intense fear, helplessness, or horror, that must be present for 1 month or longer and must result in clinically significant distress or functional impairment. The core symptoms of PTSD include 3 domains: reexperiencing (e.g., flashbacks, nightmares), avoidance/emotional numbing, and hyperarousal (e.g., irritability, hypervigilance, exaggerated startle response). Posttraumatic stress disorder is associated with marked impairment in quality of life, and patients often experience difficulties at work or in school, in fulfilling their family responsibilities, and in maintaining personal relationships. Serious psychiatric comorbidity is also prevalent in patients with PTSD. Data from the NCS demonstrate that 88% of men and 79% of women with a history of PTSD have 1 or more comorbid psychiatric diagnoses, often major depression, anxiety disorders, or alcohol/substance abuse.[7] Patients with PTSD are 6 times more likely to attempt suicide than persons without PTSD.[15]

PREVALENCE OF PTSD IN PRIMARY CARE

Although definitive epidemiologic studies are lacking, available evidence suggests that PTSD is prevalent in the primary care setting. The findings of studies conducted in primary care clinics and in women with histories of childhood abuse or domestic violence offer compelling evidence that PTSD is relatively common in primary care.[5,16,17]

A series of studies in a large primary care clinic assessed the rates of current and lifetime PTSD using a patient self-assessment demographic and psychiatric symptom questionnaire followed by a structured diagnostic interview 2 weeks later.[5,17] Patients with both full and subsyndromal PTSD were assessed in this study because subsyndromal PTSD is associated with significant functional impairment, comorbidity, suicidality, and health care utilization.[18,19] In a population of 368 primary care patients, the adjusted prevalence rate for current full or subsyndromal PTSD was 11.8%. Of these patients, a majority (83%) met diagnostic criteria for current full PTSD, and the remainder had subsyndromal PTSD.[17] Lifetime prevalence rates were higher for full PTSD (22.2%) than for subsyndromal PTSD (5.3%).[17] In addition, 22.7% had current major depression, and 22.3% had both PTSD and major depression.[17] The type of trauma appeared to influence rates of psychopathology, with assaultive trauma being more strongly associated with a current diagnosis of major depression and a history of PTSD.[5]

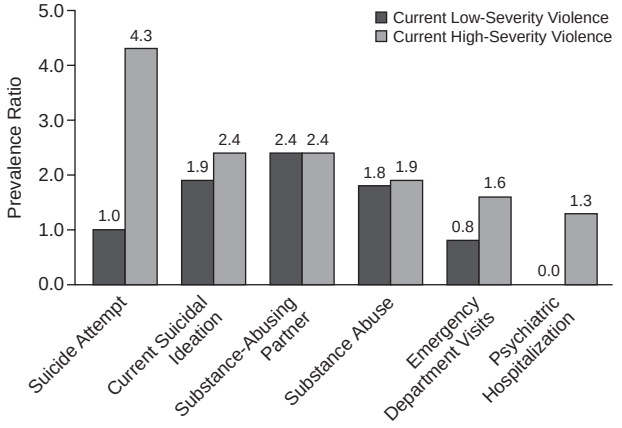
Physical and sexual abuse are traumatic events that are associated with PTSD.[11–14] In a survey of 1931 adult female primary care patients, 548 (28.4%) endorsed a history of abuse, and 126 (6.5%) had current exposure to domestic violence.[16] Although the presence of PTSD was not ascertained in this study, psychological distress, substance abuse, and the number of somatic symptoms increased in direct proportion to the severity of violence. Even women whose current violence exposure was categorized as low severity (e.g., pushing, grabbing, threats of violence) had significantly higher rates of substance abuse, psychological distress, and physical symptoms compared with controls. It is noteworthy that women who were exposed to higher levels of violence were more likely to attempt suicide or engage in suicidal thoughts, have a substance-abusing partner or abuse drugs or alcohol themselves, use emergency department services, and have a history of psychiatric hospitalization than women without exposure to domestic violence (Figure 1).

DETECTION OF PTSD IN PRIMARY CARE

The detection rate of PTSD in primary care settings, even in a population with high rates of trauma exposure, is extremely low. In a study conducted in Israel, military physicians in primary care clinics rated 182 soldiers for symptoms of psychological distress, and the results were compared with patients' self-rated scores on the General Health Questionnaire (GHQ).[20] Although 77 (42%) of the patients were experiencing psychological distress on self-rating, the primary care physicians detected distress in only 23 patients (13% of the total sample), 11 of whom did not consider themselves distressed.

In another survey of a national sample of 2975 adult primary care patients in Israel, traumatic events had been experienced by 20% of men and 25% of women.[21] Rates of current PTSD were 7.5% for men and 10.5% for women.

Figure 1. Risk of Adverse Behaviors and Negative Health-Related Outcomes Associated With Exposure to Domestic Violence[a]



[a]Data from McCauley et al.[16] Prevalence ratios in a sample of 1383 adult female patients in 4 primary care practices. Prevalence ratio calculated by dividing prevalence of parameter in a sample of current low-severity violence (N = 47) or high-severity violence (N = 79) by prevalence in a sample with no violence (N = 1257).

Of the individuals with PTSD, 80% of men and 92% of women fulfilled self-rated GHQ criteria for psychological distress. The primary care physicians in this study correctly diagnosed PTSD in only 2% of patients who fulfilled diagnostic criteria for the disorder. The physicians were more likely to detect psychological distress in patients with PTSD (OR = 4.8) compared with nondistressed patients without PTSD. Thus, obtaining a lifetime trauma history and focusing on psychological distress may increase the likelihood of detecting PTSD in primary care patients.

Comorbid psychiatric diagnoses, especially depression and alcohol/substance abuse, are common in PTSD[7] and may be a chief complaint in primary care patients with PTSD. Samson and colleagues[22] conducted a study that was originally designed to evaluate the detection and treatment of depression and anxiety disorders by primary care clinicians. In the course of conducting this study, they observed unexpectedly high rates of PTSD, which prompted further exploration of the presentation and clinical history of this disorder in primary care. Of 7444 primary care patients who were screened for psychiatric disorders, 296 screened positive and underwent semistructured diagnostic interviews, and 114 fulfilled diagnostic criteria for PTSD. Thus, 38.5% of patients who screened positive for psychiatric disorders and 1.5% of the total population had a DSM-IV diagnosis of PTSD. Trauma and psychiatric histories of the patients with psychiatric diagnoses suggested that current domestic violence, seeking mental health treatment, and suicidal behaviors predicted PTSD. Of note, patients who were exposed to domestic violence were nearly 6 times more likely to have a diagnosis of PTSD compared with patients with other psychiatric disorders (Table 1). Somatic symptoms, such as musculoskeletal, gastrointestinal, and neurologic symptoms, were more common than symptoms of depression, anxiety, or stress as chief complaints among patients with PTSD. The mean number of clinic visits was higher among patients with PTSD (1.16 per month) than the clinic average (0.21 per month) and was similar to clinic visits for major depression (1.28 per month; p = .30 vs. PTSD). This post hoc analysis is interesting because it suggests that physicians who obtain a simple trauma history, which includes queries about domestic violence, in patients with symptoms of depression or anxiety may be nearly 6 times more likely to detect undiagnosed PTSD in their patients. These findings should encourage further prospective studies.

The presence of depression, functional disability, and anxiety symptoms may also serve as useful clinical clues to identify primary care patients with PTSD. In a randomly selected sample of 1001 adult members of a large health maintenance organization, 1 of 5 patients (N = 198; 19.8%) fulfilled diagnostic criteria for an Axis I psychiatric diagnosis as determined by a structured diagnostic interview.[23] In this population of primary care patients, 20 met full DSM-IV criteria for PTSD (2%), and of these, 13 had another psychiatric disorder, such as major depression, phobia, or bipolar disorder. In an earlier analysis of this population,[24] symptoms of excessive anxiety and worry (excluding generalized anxiety disorder) were associated with greater occupational impairment, marital distress, and mental health service use than controls. Of note was the finding that in the subsample of patients with symptoms of anxiety, nearly 1 of 8 patients met full diagnostic criteria for PTSD.[24] These findings suggest that the detection rate of PTSD in primary care could be improved if clinicians increased their level of suspicion among patients with depression, anxiety symptoms, and functional disability.

IMPAIRMENT, HEALTH CARE UTILIZATION, AND ECONOMIC BURDEN OF PTSD

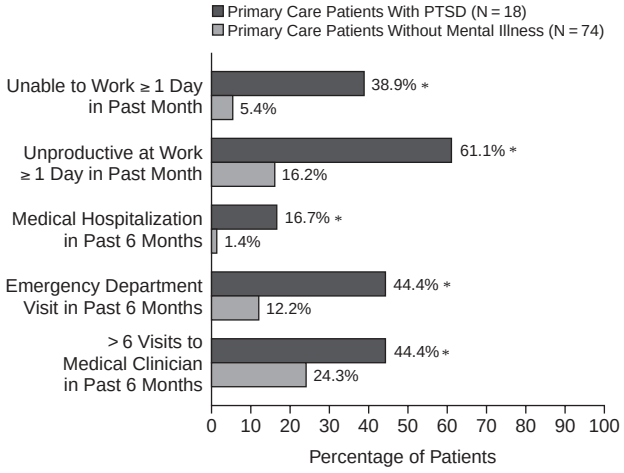
PTSD in primary care is not trivial and is associated with significant psychiatric comorbidity, functional disability, and high rates of health care resource utilization. The presence of other mental illness, functional impairment, and use of health care services were assessed in the survey conducted by Stein and associates[17] in 368 primary care patients, 11.8% of whom had either full or subsyndromal PTSD (prevalence rates adjusted for sampling framework and nonresponse). Psychiatric comorbidity, including major depression, anxiety disorders, and alcohol/substance abuse, was the rule rather than the exception in this population. Only 5 of the 18 patients with PTSD had no other psychiatric diagnoses. This population also was significantly more impaired than control subjects in terms of function at work, at home, and in social life as deter-

Table 1. Trauma History and Psychiatric History of Primary Care Patients With Posttraumatic Stress Disorder (PTSD) (N = 114) and With Non-PTSD Psychiatric Diagnoses (N = 182)[a]

	PTSD		Other Psychiatric Disorders				
Factor	N	%	N	%	Odds Ratio	CI	p Value
Current domestic violence	24	21.2	8	4.4	5.80	2.36 to 14.68	< .001
Mental health treatment	80	70.2	85	46.7	2.69	1.59 to 4.55	< .001
Psychiatric hospitalization	24	21.1	15	8.2	3.34	1.62 to 6.88	.001
Suicide attempt	34	29.8	16	8.8	4.41	2.20 to 8.92	< .001
Suicidal thoughts	19	16.7	14	7.7	2.27	1.02 to 5.05	.027
Alcohol/substance abuse	14	12.3	8	4.4	3.04	1.15 to 8.25	.012

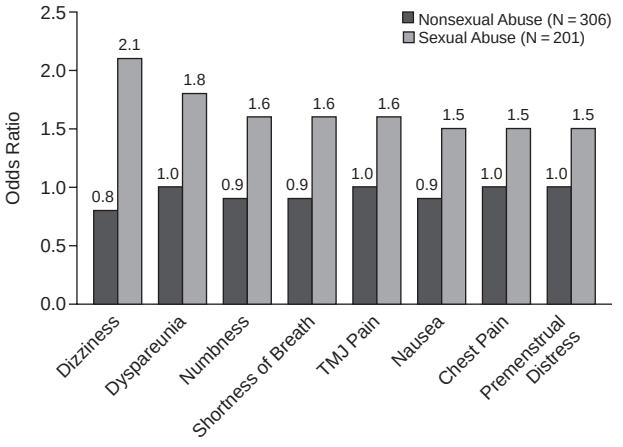
[a]Adapted with permission from Samson et al.[22]

Figure 2. Occupational Impairment and Health Care Utilization in Primary Care Patients With Posttraumatic Stress Disorder (PTSD) (N = 18) or No Psychiatric Diagnosis (N = 74)[a]



[a]Data from Stein et al.[17]
*p < .05 PTSD vs. no mental illness.

Figure 3. Odds Ratios for Somatic Complaints Among Female Primary Care Patients With Sexual Abuse (N = 221) or Nonsexual Abuse (N = 306) Compared With Nonabused Control Patients (N = 698)[a]



[a]Data from Walker et al.[27]
Abbreviation: TMJ = temporomandibular joint.

mined by the Sheehan Disability Scale. Impaired productivity at work or days lost from work and use of health care services were all significantly greater in the patients with PTSD versus mentally healthy controls (Figure 2).

Mental health care utilization among veterans with PTSD is high. However, the findings of a prospective survey conducted in a Veterans Affairs (VA) medical center in the United States demonstrate that use of general medical services is also elevated in veterans with PTSD compared with matched controls without PTSD.[25] Prospective assessment of service use 1 year after diagnosis of PTSD revealed that the median number of visits to a general medical clinic was 18 for veterans with PTSD compared with 10 for controls without PTSD. Medical service utilization was particularly high among younger veterans with PTSD. The severity of PTSD symptoms was also related to higher medical service use.

A history of childhood maltreatment is associated with increased somatic complaints, health-risk behaviors, and use of health care resources in primary care. In a 5-year survey of 1225 women who were randomly selected from the membership of a large health maintenance organization, 18% reported a history of childhood sexual abuse, 25% endorsed nonsexual abuse in childhood, and 57% had no history of maltreatment.[26,27] The presence of PTSD was not ascertained. Compared with nonabused controls, women who were maltreated as children were more likely to describe their overall health as fair or poor (OR = 1.5; 95% CI = 1.3 to 1.7) and to have a significantly greater number of mental health, pain disorder, and general medical diagnoses ($p \leq .05$). A childhood history of abuse was also associated with an increased likelihood of somatic complaints (Figure 3), particularly among women who were sexually abused as children.[27]

Median annual health care costs for a 5-year period among the women with any history of abuse were $97 higher than for controls.[26] When women with sexual abuse histories were considered separately, costs were $245

higher per annum than for nonabused controls for the 5-year period of the study. Women with sexual abuse histories were nearly twice as likely as nonabused women to use emergency department services during this period (OR = 1.91). Utilization of mental health services was also twice as likely among women with any history of abuse (OR = 2.29) compared with nonabused controls.

CONCLUSION

Advances have been made in the recognition, treatment, and outcome of primary care patients with mood and anxiety disorders.[28] However, many patients with PTSD pass silently through the offices of primary care clinicians. A majority are believed to return home with neither a diagnosis nor a treatment plan. Lifetime rates of PTSD in the United States are roughly 7.8%, but the prevalence in the primary care setting is not known with precision. Although data from small studies suggest that the overall prevalence of PTSD in primary care is 2%[22,23] or higher,[17,21] it is likely that true prevalence rates are much higher. Patients with histories of domestic violence or abuse may be particularly at risk and greatly understudied.

Uncovering PTSD in primary care patients can be a difficult task. Patients with PTSD often present to their primary care physician with chief complaints of somatic symptoms and do not relate the presence of these symptoms to exposure to traumatic events. Trauma histories are not routinely obtained in primary care. Many patients will not endorse a history of trauma or do not associate their trauma exposure with current health-related problems. Physicians may be reluctant to inquire about current or past traumatic experiences due to stigma or time constraints in a busy office setting.

PTSD also may be associated with significant symptoms of other psychiatric disorders, such as depression, anxiety, and substance/alcohol abuse. Depression and anxiety are often detected by primary care physicians; however, symptoms of PTSD may be overlooked.[22] Physicians who address only the symptoms of depressed mood or anxiety may not recognize trauma as the underlying cause and may miss the opportunity to offer referrals for appropriate medication and psychotherapy to their patients with PTSD.

For PTSD to be recognized, diagnosed, and treated in primary care patients, clinicians must maintain a high index of clinical suspicion for PTSD in patients with symptoms of depression and anxiety, substance/alcohol abuse, suicidal behavior, psychological distress, functional disability, and excess utilization of health care services, particularly if patients have past or current exposure to traumatic events. A solution to making the diagnosis of PTSD may be as simple as obtaining a trauma history. Patients who are directly asked about past or present trauma, especially domestic violence, other forms of assaultive trauma, and childhood abuse or neglect, may be more likely to endorse a history than if they are not asked.

REFERENCES

1. Nisenson LG, Pepper CM, Schwenk TL, et al. The nature and prevalence of anxiety disorders in primary care. Gen Hosp Psychiatry 1998;20:21–28
2. Regier DA, Narrow WE, Rae DS, et al. The de facto US mental and addictive disorder service system: epidemiologic catchment area prospective 1-year prevalence rates of disorders and services. Arch Gen Psychiatry 1993;50:85–94
3. Regier DA, Goldberg ID, Taube CA. The de facto US mental health services system: a public health perspective. Arch Gen Psychiatry 1978;35:685–693
4. Higgins ES. A review of unrecognized mental illness in primary care: prevalence, natural history, and efforts to change the course. Arch Fam Med 1994;3:908–917
5. McQuaid JR, Pedrelli P, McCahill ME, et al. Reported trauma, posttraumatic stress disorder and major depression among primary care patients. Psychol Med 2001;31:1249–1257
6. de Jong JT, Komproe IH, Van Ommeren M, et al. Lifetime events and posttraumatic stress disorder in 4 postconflict settings. JAMA 2001;286:555–562
7. Kessler RC, Sonnega A, Bromet E, et al. Posttraumatic stress disorder in the National Comorbidity Survey. Arch Gen Psychiatry 1995;52:1048–1060
8. Perkonigg A, Kessler RC, Storz S, et al. Traumatic events and posttraumatic stress disorder in the community: prevalence, risk factors and comorbidity. Acta Psychiatr Scand 2000;101:46–59
9. Michaud CM, Murray CJ, Bloom BR. Burden of disease–implications for future research. JAMA 2001;285:535–539
10. Helzer JE, Robins LN, McEvoy L. Post-traumatic stress disorder in the general population: findings of the epidemiologic catchment area survey. N Engl J Med 1987;317:1630–1634
11. Campbell JC. Health consequences of intimate partner violence. Lancet 2002;359:1331–1336
12. Heim C, Nemeroff CB. The role of childhood trauma in the neurobiology of mood and anxiety disorders: preclinical and clinical studies. Biol Psychiatry 2001;49:1023–1039
13. Marais A, de Villiers PJ, Moller AT, et al. Domestic violence in patients visiting general practitioners: prevalence, phenomenology, and association with psychopathology. S Afr Med J 1999;89:635–640
14. Reynolds MW, Wallace J, Hill TF, et al. The relationship between gender, depression, and self-esteem in children who have witnessed domestic violence. Child Abuse Negl 2001;25:1201–1206
15. Kessler RC, Borges G, Walters EE. Prevalence of and risk factors for lifetime suicide attempts in the National Comorbidity Survey. Arch Gen Psychiatry 1999;56:617–626
16. McCauley J, Kern DE, Kolodner K, et al. Relation of low-severity violence to women's health. J Gen Intern Med 1998;13:687–691
17. Stein MB, McQuaid JR, Pedrelli P, et al. Posttraumatic stress disorder in the primary care medical setting. Gen Hosp Psychiatry 2000;22:261–269
18. Marshall RD, Olfson M, Hellman F, et al. Comorbidity, impairment, and suicidality in subthreshold PTSD. Am J Psychiatry 2001;158:1467–1473
19. Stein MB, Walker JR, Hazen AL, et al. Full and partial posttruamatic stress disorder: findings from a community survey. Am J Psychiatry 1997;154:1114–1119
20. Maoz B, Mark M, Ribak J, et al. Physicians' detection of psychological distress in primary-care clinics. Psychol Rep 1991;69:999–1003
21. Taubman-Ben-Ari O, Rabinowitz J, Feldman D, et al. Post-traumatic stress disorder in primary-care settings: prevalence and physicians' detection. Psychol Med 2001;31:555–560
22. Samson AY, Bensen S, Beck A, et al. Posttraumatic stress disorder in primary care. J Fam Pract 1999;48:222–227
23. Olfson M, Fireman B, Weissman MM, et al. Mental disorders and disability among patients in a primary care group practice. Am J Psychiatry 1997;154:1734–1740
24. Olfson M, Broadhead E, Weissman MM, et al. Subthreshold psychiatric symptoms in a primary care group practice. Arch Gen Psychiatry 1996;53:880–886
25. Calhoun PS, Bosworth HB, Grambow SC, et al. Medical service utilization by veterans seeking help for posttraumatic stress disorder.

Am J Psychiatry 2002;159:2081–2086
26. Walker EA, Unutzer J, Rutter C, et al. Costs of health care use by women HMO members with a history of childhood abuse and neglect. Arch Gen Psychiatry 1999;56:609–613
27. Walker EA, Gelfand A, Katon WJ, et al. Adult health status of women with histories of childhood abuse and neglect. Am J Med 1999;107: 332–339
28. Ballenger JC, Davidson JRT, Lecrubier Y, et al. Consensus statement on posttraumatic stress disorder from the International Consensus Group on Depression and Anxiety. J Clin Psychiatry 2000;61(suppl 5):60–66

Questions and Answers

Question: Why is PTSD so overlooked in primary care?

Dr. Lecrubier: We really do not know the answer to this question. As with other psychological diagnoses, a major factor is the absence of spontaneous complaints by the patient. However, in my experience, when primary care physicians use a structured interview tool that integrates questions about psychological distress, suicidality, and traumatic experiences, they are much more likely to uncover patients with undiagnosed PTSD.

Question: Psychological distress was identified in several studies as a possible predictor of PTSD in primary care patients. What is psychological distress, and how can it be recognized in this patient population?

Dr. Lecrubier: Psychological distress can manifest in many forms. However, in the context of exposure to trauma and development of PTSD, patients with impaired sleep, excessive worry, sadness, fear, avoidance of situations that remind the patient of the traumatic event, or fatigue could be considered to have psychological distress. ❑